

| PROJECT REFERENCE NO. | SHEET NO. |
|-----------------------|-----------|
| R-5857 | Sig. 7.0 |

2 Phase
Fully Actuated
Signal Systems#:D03-38 Shallotte

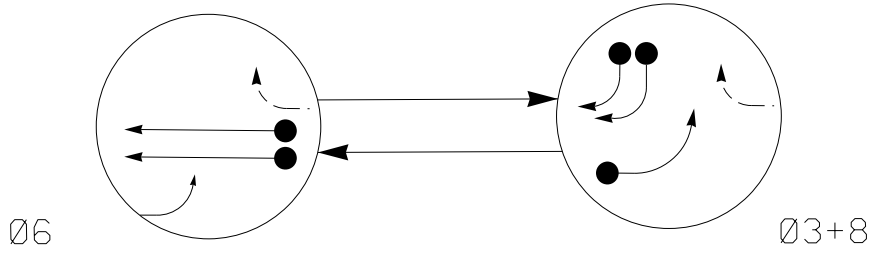
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Activate flashers 3 seconds prior to end of phase 6 green.
- Flash vertically-mounted beacons alternately.
- Install new conduit as close as possible to edge of pavement.
- Refer to the Pavement Marking Plans for pavement marking details.

LEGEND

| PROPOSED | EXISTING |
|----------|----------|
| | |
| | N/A |
| | N/A |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | N/A |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

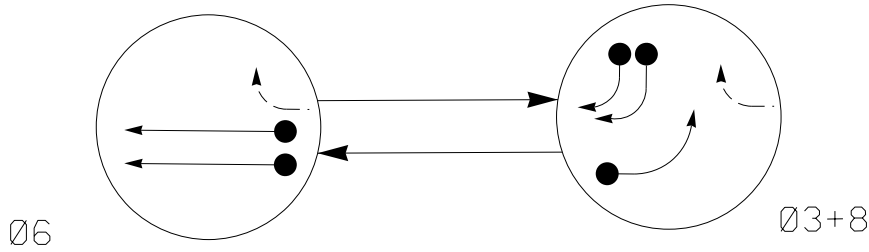
DEFAULT PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

ALTERNATE PHASING DIAGRAM



| DEFAULT PHASING TABLE OF OPERATION | | | |
|------------------------------------|-------|------|-------|
| SIGNAL FACE | PHASE | | |
| | 06 | 03+8 | FLASH |
| 31,32 | F | ← | → |
| 61,62 | G | R | R |
| 81,82 | R | → | R |

| ALTERNATE PHASING TABLE OF OPERATION | | | |
|--------------------------------------|-------|------|-------|
| SIGNAL FACE | PHASE | | |
| | 06 | 03+8 | FLASH |
| 31,32 | ← | → | → |
| 61,62 | G | R | R |
| 81,82 | R | → | R |

SIGNAL FACE I.D.

All Heads L.E.D.

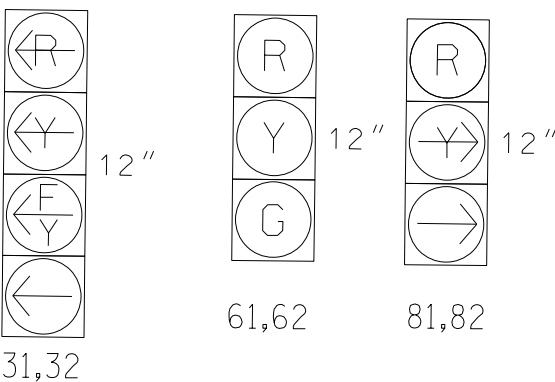
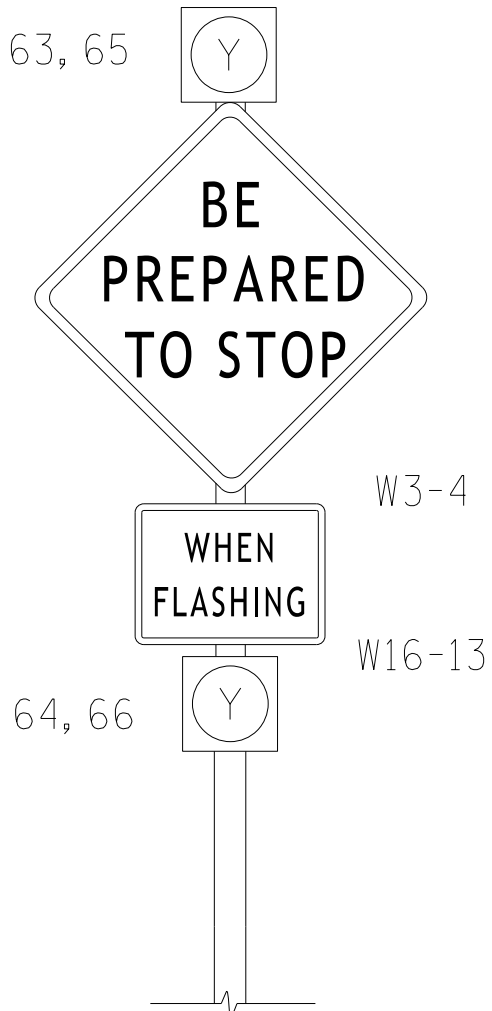


Figure 1



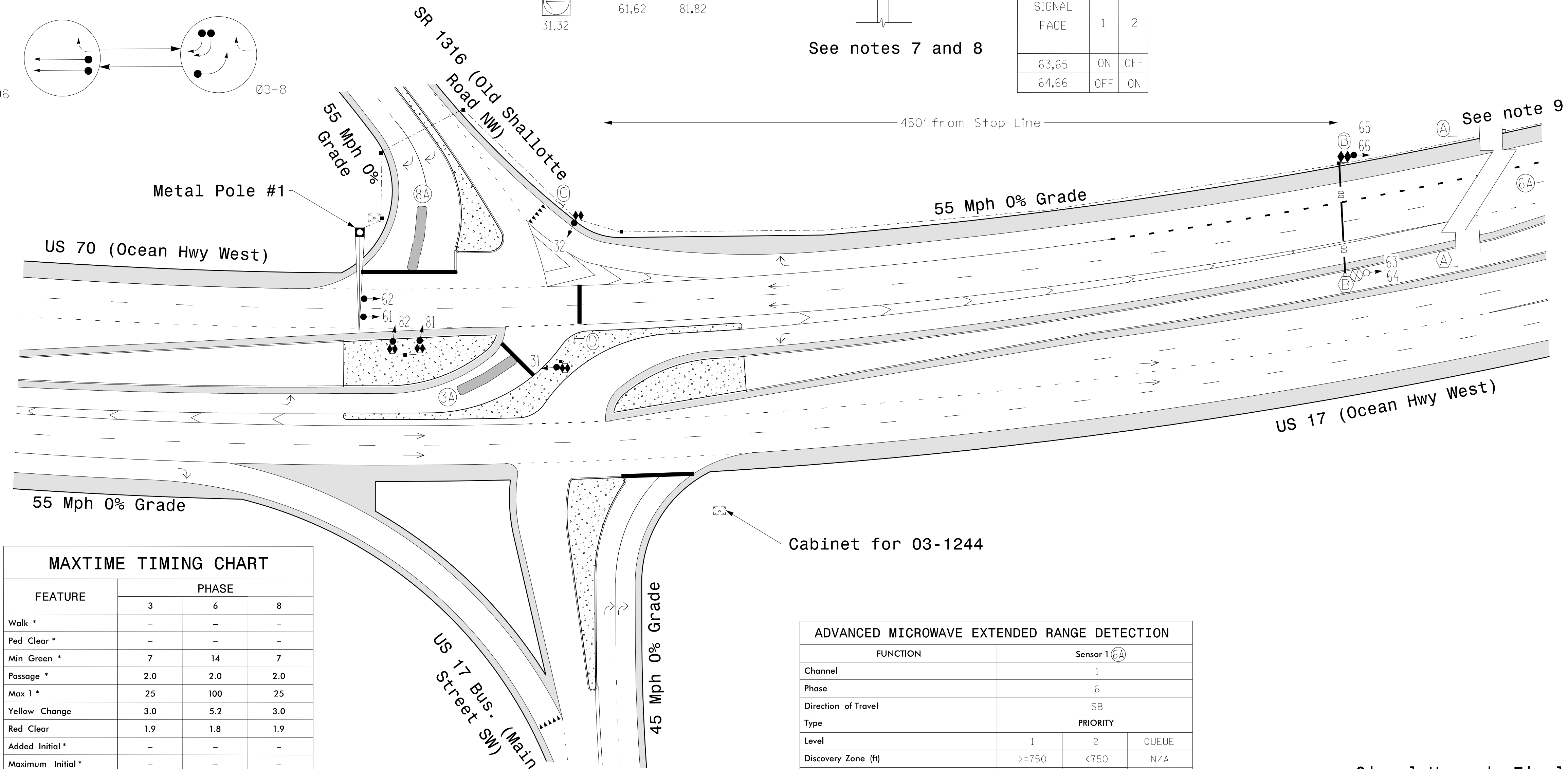
See notes 7 and 8

| MAXTIME DETECTOR INSTALLATION CHART | | | | | | | | | | | | |
|-------------------------------------|-----------|------------------------------|-------|----------|------------|-------------|-------------|--------|---------------|------|--------------------|----------|
| DETECTOR | | | | | | PROGRAMMING | | | | | | |
| LOOP | SIZE (FT) | DISTANCE FROM STOP LINE (FT) | TURNS | NEW LOOP | CALL PHASE | DELAY TIME | EXTEND TIME | EXTEND | ADDED INITIAL | CALL | DELAY DURING GREEN | NEW CARD |
| 3A | * | 0 | * | X | 3 | 15** | - | X | - | X | - | * |
| 8A | * | 0 | * | - | 8 | 15 | - | X | - | X | - | * |

* Multizone microwave detection zone.

** Disable delay during alternate phasing operation

| TABLE OF OPERATION | | |
|--------------------|----------|-----|
| SIGNAL FACE | INTERVAL | |
| | 1 | 2 |
| 63,65 | ON | OFF |
| 64,66 | OFF | ON |



| MAXTIME TIMING CHART | | | |
|-------------------------|-------|------------|-----|
| FEATURE | PHASE | | |
| | 3 | 6 | 8 |
| Walk * | - | - | - |
| Ped Clear * | - | - | - |
| Min Green * | 7 | 14 | 7 |
| Passage * | 2.0 | 2.0 | 2.0 |
| Max 1 * | 25 | 100 | 25 |
| Yellow Change | 3.0 | 5.2 | 3.0 |
| Red Clear | 1.9 | 1.8 | 1.9 |
| Added Initial * | - | - | - |
| Maximum Initial * | - | - | - |
| Time Before Reduction * | - | - | - |
| Time To Reduce * | - | - | - |
| Minimum Gap | - | - | - |
| Advance Walk | - | - | - |
| Pre-Clearance | - | 3.0 | - |
| Non Lock Detector | X | - | X |
| Vehicle Recall | - | MIN RECALL | - |
| Dual Entry | X | - | X |

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

| ADVANCED MICROWAVE EXTENDED RANGE DETECTION | | | |
|---|--|---------------|---------|
| FUNCTION | | Sensor 1 (6A) | |
| Channel | | 1 | |
| Phase | | 6 | |
| Direction of Travel | | SB | |
| Type | | PRIORITY | |
| Level | | 1 | 2 |
| Discovery Zone (ft) | | >=750 | <750 |
| Range (ft) | | 100-900 | 100-600 |
| Enable Speed | | Y | Y |
| Speed Range (mph) | | 35-100 | 35-100 |
| Enable Estimated Time of Arrival | | Y | Y |
| Estimated Time of Arrival (sec) | | 2.5-10.0 | 2.5-6.5 |

Signal Upgrade-Final Design

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

| | | | | | |
|---|--|---|--|------------------------------|--|
| Prepared for the Offices of: | | US 17 (Ocean Highway) at SR 1316 (Old Shallotte Rd NW) | | SEAL | |
| Division 3 Brunswick County Shallotte | | PLAN DATE: March 2025 | | REVIEWED BY: G. G. Murr, Jr. | |
| PREPARED BY: Nadia Degbotse | | REVIEWED BY: | | INIT. DATE | |
| REVISIONS | | INIT. | | DATE | |
| 0 40 1"=40' | | G. G. Murr, Jr. | | 3/31/2025 | |
| 1 Glenwood Avenue Raleigh, NC 27603 Tel: 919.789.9977 Fax: 919.789.9591 License: F-0453 | | SIC. INVENTORY NO. | | 03-1245 | |